P24351.A01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Shino MANABE et al.

Group Art Unit : Unknown

Appln. No : 10/673,131

Examiner : Unknown

Filed : September 30, 2003

For : A METHOD FOR MONITORING A REACTION BY COLORING REACTION IN THE SOLID PHASE SYNTHESIS OF A SUGAR CHAIN

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir :

In accordance with the duty of disclosure under 37 C.F.R. §§ 1.56, 1.97, and 1.98, Applicants hereby bring the following information to the attention of the Examiner, which includes information cited and discussed in the specification.

Peter H. SEEBERGER et al., "Monitoring the Progress of Solid-Phase Oligosaccharide Synthesis by High-Resolution Magic Angle Spinning by High-Resolution Magic Angle Spinning NMR: Observations of Enhanced Selectivity for β-Glycoside Formation from α-1,2-Anhydrosugar Donors in Solid-Phase Couplings", Angew. Chem. Int. Ed. Engl., Vol. 36, No. 5, pp. 491-493 (1997), which is cited and discussed in the specification beginning on page 1, second paragraph;

Takuya KANEMITSU et al., "Quantitative Monitoring of Solid-Phase Synthesis Using Gated Decoupling ^{13}C NMR Spectroscopy with a ^{13}C-Enriched Protecting Group

and an Internal Standard in the Synthesis of Sialyl Lewis^X Tetrasaccharide", Angew. Chem. Int. Ed., Vol. 37, No. 24, pp. 2415-3418 (1998), which is cited and discussed in the specification beginning on page 1, second paragraph;

Mickael MOGEMARK et al., "Monitoring Solid-Phase Glyoside Synthesis with ^{19}F NMR Spectroscopy", Organic Letters, Vol. 3, No. 10, pp. 1463-1466 (2001), which is cited and discussed in the specification beginning on page 1, second paragraph; and

E. KAISER et al., "Color Test for Detection of Free Terminal Amino Groups in the Solid-Phase Synthesis of Peptides", Anal. Biochem., Vol. 34, pp. 595-598 (1970), which is cited and discussed in the specification beginning on page 1, third paragraph.

Manabe et al., JACS Communications, "On-Resin Real-Time Reaction Monitoring of Solid-Phase Oligosaccharide Synthesis", on Internet web site "J.A.C.S. Web"; Web Release Date: October 3, 2002 (3 pages).

Copies of the above-noted documents are enclosed together with a duly completed Form PTO-1449. The Examiner is accordingly requested to consider each of these documents, and to make them of record in this application by initialing in the appropriate spaces on the Form PTO-1449. Applicant respectfully requests that the Examiner include a copy of the initialed Form PTO-1449 with the next communication from the U.S. Patent and Trademark Office.

Applicants note that while this Information Disclosure Statement is being filed more than three months from the filing date, Applicants have not received an action on the merits from the U.S.

Patent and Trademark Office. Accordingly, consideration of the enclosed document is required under 37 C.F.R. 1.97(b)(3).

However, if an action on the merits has been mailed prior to the filing date of this Information Disclosure Statement, Applicants hereby authorize the charging of any required fees necessary for consideration of the documents cited herein to Deposit Account No. 19-0089.

Should there be any questions, the Examiner is invited to contact the undersigned at the below listed telephone number.

Respectfully submitted,
Shino MANABE et al.

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Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. P24351	Serial No. 10/673,131
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Applicant Shino MANABE et al.	
	Filing Date September 30, 2003	Group Not Known

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	✓	1	Peter H. SEEBERGER et al., "Monitoring the Progress of Solid-Phase Oligosaccharide Synthesis by High-
			Resolution Magic Angle Spinning by High-Resolution Magic Angle Spinning NMR: Observations of Enhanced
			Selectivity for β-Glycoside Formation from α-1,2-Anhydrosugar Donors in Solid-Phase Couplings", Angew. Chem.
			Int. Ed. Engl., Vol. 36, No. 5, pp. 491-493 (1997).
		2	Takuya KANEMITSU et al., "Quantitative Monitoring of Solid-Phase Synthesis Using Gated Decoupling ^{13}C NMR ✓
			Spectroscopy with a ^{13}C-Enriched Protecting Group and an Internal Standard in the Synthesis of Sialyl Lewis^x
			Tetrasaccharide", Angew. Chem. Int. Ed., Vol. 37, No. 24, pp. 2415-3418 (1998).
		3	Mickael MOGEMARK et al., "Monitoring Solid-Phase Glyoside Synthesis with ^{19}F NMR Spectroscopy", Organic ✓
			Letters, Vol. 3, No. 10, pp. 1463-1466 (2001).
		4	E. KAISER et al., "Color Test for Detection of Free Terminal Amino Groups in the Solid-Phase Synthesis of
			Peptides", Anal. Biochem., Vol. 34, pp. 595-598 (1970).
		5	Manabe et al., JACS Communications, "On-Resin Real-Time Reaction Monitoring of solid-Phase Oligosaccharide
			Synthesis", on Internet web site "J.A.C.S. Web", Web Release Date: October 3, 2002 (3 pages).

EXAMINER	DATE CONSIDERED

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.